MICROPROCESSOR-BASED PROGRAMMER/CONTROLLER

PRO-8
MICROPROCESSOR-BASED CONTROL

PRO-SET
DIGITAL INDICATING CONTROL

PRO-TEMP
MICROPROCESSOR-BASED CONTROL

TOUCH-MASTER
DIGITAL READOUT CONTROL

TEMP-MASTER
SOLID-STATE CONTROL

FRICTION-AIRE®
PATENTED
OVENS

STABIL-THERM®
UTILITY OVENS

ULTRA-TEMP®
OVENS

MASTER/HEAT™
OVENS

Humid-Flow®
PATENTED
AIR-COOLED
TEMPERATURE/HUMIDITY CABINETS

Magni Whirl®
PATENTED IN U.S.A. AND CANADA
CONSTANT TEMPERATURE BATHS

vapor-temp®
PATENTED
CONTROLLED HUMIDITY CABINETS

Constant-Flow®
PATENTED
PORTABLE COOLING UNITS

VERSA-RANGE®
REFRIGERATED TEST CHAMBERS

Lab-Heat
LABORATORY MUFFLE FURNACES

VERSA-Whirl®
CONSTANT TEMPERATURE BATHS

Stabil-Glow®
FURNACES

RAD-O-GLOW®
FURNACES

MODEL NO. OY 520C-3

VOLTAGE _____

SERIAL NO. OY 3-80047

Read these instructions carefully before operating unit. Have them handy for ready reference at all times.

CONSTANT TEMPERATURE CONTROLLED EQUIPMENT TO +3000°F. (+1650°C.)

BLUE M

A UNIT OF GENERAL SIGNAL

BLUE ISLAND, ILLINOIS 60406

PHONES: (312) 468-7755 385-9000 TWX: 910-689-3398

Designers and Manufacturers of
ELECTRIC OVENS, BATHS, ENVIRONMENTAL CABINETS, FURNACES, INCUBATORS, REFRIGERATED UNITS, AND ACCESSORIES

CAUTION!

TO AVOID DAMAGE, THIS INSTALLATION ADJUSTMENT INSTRUCTION MUST BE FOLLOWED CAREFULLY.

INSTALLATION ADJUSTMENT

This unit is designed to operate from a wide range of power input voltages. To provide optimum internal control circuit operation, the secondary of the control circuit transformer (located on tray behind control panel) is provided with several adjustable taps and a double wound primary coil. Installing electrician must verify that this transformer has been connected for your actual power input voltage.

The transformer primary (Terminals H1, H2, H3 and H4) are connected for either 208-240 volts or 380-480 volts. These connections should not be changed as correction of such magnitude would also require power component replacement (heaters, motors, fuses and even wiring).

The transformer secondary (terminals X1, X0, X2 and X3) can and should be adjusted to provide a control operating voltage of 110 to 120 volts on 60 hertz units or 100 to 110 volts on 50 hertz units. Transformer terminal X1 is grounded to act as control circuit neutral and should not be changed, but wire connected to terminal X0, X2, or X3 can be moved to provide the control voltage closest to that listed above. Table on wiring diagram shows usual voltage connection, but it is recommended that an actual measurement of control circuit voltage be made at time of installation and tap adjustments be made to bring control voltage to above optimum value.

NOTE: NOT ALL TRANSFORMERS INCLUDE THE X0 TAP.

NOTICE - CAUTION

BLUE-M BELIEVES THIS INFORMATION IS CORRECT FOR YOUR EQUIPMENT AS IT WAS ORIGINALLY SUPPLIED BY US. SAFETY REQUIREMENTS ARE CHANGING CONTINUOUSLY, YOUR EQUIPMENT MAY NO LONGER MEET CURRENT SAFETY REQUIREMENTS. BLUE-M CANNOT BE RESPONSIBLE FOR CHANGES MADE BY YOU, OTHER USERS OR OWNERS.

WS/AA/LV: 5/16/86

GS BLUE M ELECTRIC

Hazard

This unit is not intended for use in processing hazardous work loads. Fatal injuries and property damage can result from processing combustible volatile fluids or materials which emit explosive vapors.

Consult with your safety engineering staff before processing questionable loads in this unit.

Blue M designs and manufactures other equipment for processing hazardous materials.

Caution For Units With OTP Only!

If this unit is equipped with OTP, overtemperature protection circuitry, then unit must be checked once a month to ensure it is performing according to design parameters.

TO TEST: Run operating temperature of chamber without a product load to a value above the OTP trip point, usually a value ten degrees above unit's normal maximum operating temperature. Lowering trip point to the temperature setpoint to create an alarm condition is NOT a valid test.

When plenum temperature reaches the OTP setpoint, chamber should shut down and cease operating if the OTP circuit is functioning properly.

After testing, chamber can be returned to normal operation by pressing the OTP reset button.

Refer to your unit's OPERATING AND MAINTENANCE Instruction for detailed information.

Danger!

To ensure proper operation of unit and for safety, make sure that unit is level when installed. Door(s) may swing shut on personnel if unit is tilted!

This product is built with designed-in safety features. Any unauthorized modifications or component changes to this unit could result in conditions leading to personal injuries, property damage, and fatalities!

RH: 4/15/87

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BLUE M ELECTRIC
A General Signal Company

Replacement Instruction Notice

This operating manual, wiring diagram and parts list is being supplied by Blue M / A unit of General Signal. We believe this information to be the same as supplied with equipment when it was shipped by us.

A. There may be some Instrumentation Manuals missing for obsolete or special instruments used on this equipment. Blue M no longer has these manuals and you should obtain them from the Instrument Manufacturers.

B. The part numbers shown on the parts list may still be current or they may have been changed to our new parts numbering system. Parts ordered with the old numbers will be converted to the new numbers when your order is received. We cannot guarantee that all parts are available for all units. Substitutes will be supplied when these are available.

C. BLUE M CANNOT BE RESPONSIBLE FOR ANY MODIFICATIONS OR CHANGES MADE BY YOU OR OTHERS USING THIS EQUIPMENT.

D. If you should have any questions or doubts as to the operation or suitability of this or any other Blue M unit to perform a specific application, we suggest you contact your nearest Blue M Office for an inspection call.

E. Blue M equipment is designed and manufactured to the safety standards required for the particular piece of equipment as they applied to the equipment at the time it was manufactured. These standards have changed over the years and it is quite possible that the equipment you have will no longer meet these standards.

WS/RH: 12/8/88

* * * * * IMPORTANT WARNING! * * * * *

DO NOT MODIFY OR CHANGE ANY COMPONENT OF THE SYSTEM. PARTS REPLACED MUST BE O.E.M. EXACT REPLACEMENT EQUIPMENT. MODIFICATION OR USE OF THE EQUIPMENT OTHER THAN IN A MANNER EXPRESSLY INTENDED IS DANGEROUS. THIS INCLUDES THE USE OF USER SUPPLIED COMPONENTS AND MATERIALS SUCH AS REFRIGERANTS WHICH THE UNIT WAS NOT SPECIFICALLY DESIGNED TO UTILIZE. THIS ALSO INCLUDES, IN EQUIPMENT USING SUCH DEVICES, RECONFIGURATION OF THE CONTROLLER WHICH COULD CHANGE THE UNIT CHARACTERISTICS AND DESIGN PARAMETERS, AT BEST HAMPERING PERFORMANCE, AND AT WORST CREATING A DEADLY PIECE OF EQUIPMENT.

BLUE M SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING INCIDENTAL AND/OR CONSEQUENTIAL DAMAGES, REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING NEGLIGENCE AND/OR STRICT LIABILITY.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY AND INTEGRITY OF THE PRODUCT FOR INTENDED USE AND THAT UNIT HAS NOT BEEN ALTERED IN ANY WAY. USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER THEREWITH.

* * * * * * * * * * * * * * * * *

RH: 3/17/87

STABIL-THERM BATCH OVENS AND ELECTRIC UTILITY OVENS WITH TEMP-MASTER CONTROL

INSTALLATION

These Installation Instructions contain general information on initial inspection and installation of this chamber. Do not attempt to place the chamber into operation until fully familiarized with this set of operating and maintenance instructions.

A. UNCRATING

Carefully uncrate oven and all accessories. Visually inspect for any signs of damage from improper handling. Report all claims for damage to the carrier immediately. We will assist you with your claim, if requested. Please do not return goods without written authorization.

B. LOCATION

This oven will maintain temperatures within its range to close tolerance for extended periods without adjustment. Producing results compatible with this oven's capabilities requires reasonable care in choice of location.

Line voltage variations should be kept to a minimum for best control accuracy. Do not locate oven in areas of wide ambient temperature variation. While this oven will perform satisfatorily under less than ideal conditions, optimum control characteristics will be obtained if these variables are kept to a minimum.

*** * * * CAUTION * * * ***

UNIT MUST BE AT LEAST 12" FROM ANY VERTICAL SURFACE TO PREVENT EXCESS HEAT BUILD UP.

*** * * * * * * * * * * * ***

C. POWER CONNECTION

It is recommended that a fuse disconnect switch or circuit breaker be installed in power line to oven. (On oven using a three prong plug and line cord: cord and plug are considered to be sufficient disconnect). Necessary information for sizing fuse or circuit breaker, and for sizing power lines appear on the unit's data plate and the wiring diagram parts list. Fuse protection must never exceed 125% of the oven's current rating.

CHAMBER MUST BE GROUNDED This piece of equipment must be properly grounded before it is used. Consult the National Electrical Code and local codes for the proper method.
(On ovens with line cord and plug, the cord and plug provide adequate ground when connected to a properly installed receptacle).

CONTROLS

This section has been separated into several parts, each covering a particular control or feature that makes up total oven. Review each section carefully.

A. TEMPMASTER CONTROL

TEMPMASTER is a unique Blue M control system which was developed to provide a convenient and consistant method of entering thermal set point data for often repeated tests.

TEMPMASTER allows the setting and calibration of any preselected temperatures within the thermal range of the unit by means of individual multi-turn potentiometers (pots). Push button switches allow the operator to select either one of the preselected set points quickly and accurately.

The push button control selected will cause the chamber to repeat the selected settings constantly, thus eliminating hysteresis factors found in manually set systems.

Besides the two main temperature settings, TEMPMASTER also features a single-turn pot(s) connected to a calibrated thumb wheel set point device. This feature allows the operator to select other temperatures without disturbing the preset ones. If left in one position, the thumbwheel also serves as an additional constant set point.

TEMPMASTER also incorporates Blue M's overtemperature protection control circuitry.

B. SET POINT SELECTOR SWITCHES

These are interlocking push button switches. When depressed, each switch's contacts connect the corresponding set point control pot with the temperature controller.

C. CONTROL SET POINT TRIM POTS

Multi-turn pots supply set point information to the temperature controller. The pots may be set to values within the unit's operating range. However, the thumbwheel should be used for more precise temperature settings above 204 degrees Celcius. When the corresponding push button is depressed, the setpoint for which the pot is adjusted will be achieved.

Control set point pots are generally shipped set at a nominal value (see Calibration Section below). If factory calibration at any specified temperature is required, set point switches will be set for these temperatures. Setting of control set point pots is **clockwise to increase** and **counterclockwise to decrease** the temperature setting.

D. THUMB WHEEL MANUAL SET POINT CONTROL

By partially depressing one of the set point selector switches, both selector switches will move to the "out" position. This causes the thumbwheel to assume control of the chamber temperature.

E. MAIN POWER SWITCH

The main power switch provides control of chamber circuit power to turn oven on or off.

F. MAIN PILOT LAMP

Lights to indicate that power is applied to the control circuit, and unit is in operation.

G. DIGITAL INDICATOR

This is a 3-1/2 digit instrument used to indicate chamber temperature. Input to the indicator is is the resistance of the thermal sensing bulb located at the back of the oven chamber.

H. CONTROL FAILURE SIGNAL LAMP

Indicates that chamber was in an overtemperature condition and the OTP circuitry has shut the unit down. The lamp will go out when the OTP RESET tab is lifted.

I. HEATER PILOT LIGHT

This light indicates that line voltage is being applied to the heating elements. The light will blink rapidly as chamber temperature approaches set point temperature. This is an indication of the zero cross time proportioning action of the controller. When well below set point light will be on continuously. When above setpoint lamp will remain off.

J. OVERTEMPERATURE CONTROL (OTP)

The overtemperature protection control is provided to prevent damage to the oven or work load in the event chamber temperature rises above setpoint. If unit temperature exceeds OTP set point, a mechanical switch opens the circuit to oven and heating element preventing any further rise in temperature. To reset this switch, cool chamber below set point, determine and correct cause of condition, then lift up on reset tab protruding from the front control panel.

Normally, the OTP control is adjusted to a value of 10 and 20 degreesC. above the main control setting. The left hand thumb wheel is used to make OTP setting.

*** * * * CAUTION * * * ***

OVERTEMPERATURE PROTECTION SYSTEM SHOULD BE CHECKED REGULARLY TO INSURE PROPER OPERATION OF THIS SAFETY SYSTEM SEE SECTION D IN MAINTENANCE SECTION.

*** * * * * * * * * * * * ***

K. USE OF INTAKE AND EXHAUST VENTS

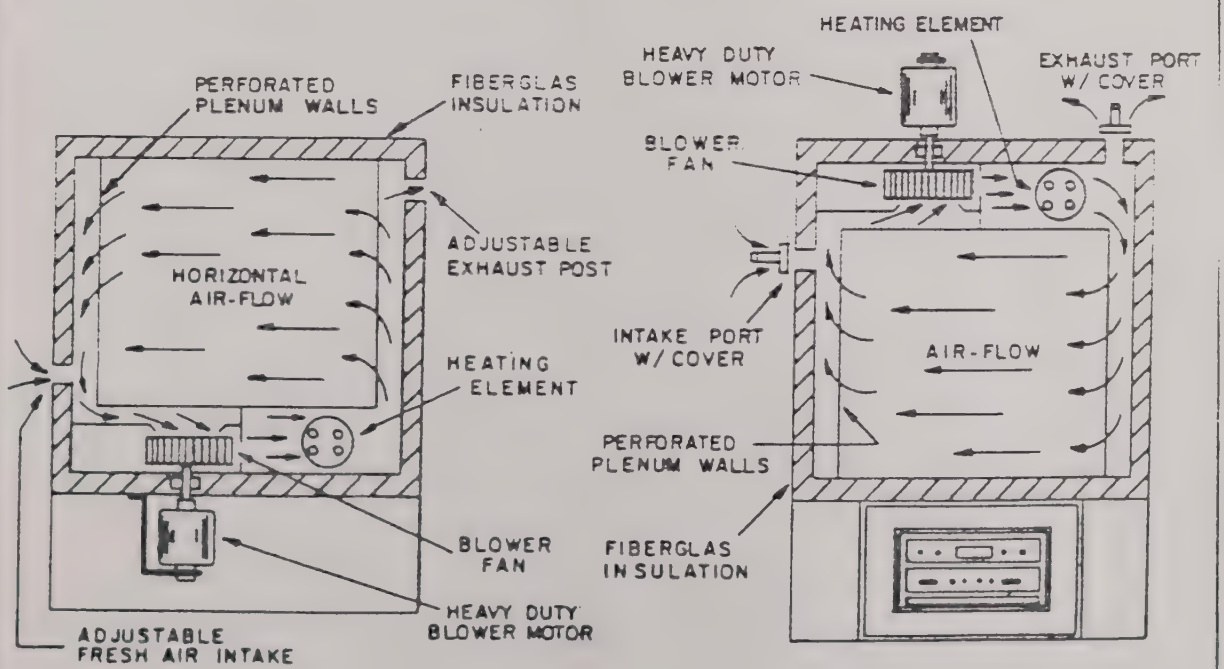
For most applications, vents should be closed during operation of oven; closed vents result in more efficient operation and greater temperature stability. There are circumstances when vents should be partially or fully open.

1. To provide operation at near ambient temperatures. Oven may not reliably control temperatures near ambient. Open vents allow sufficient heat loss to permit such operation.

2. To provide slow cool down of work load. Some work loads may be damaged by heat shock when oven door is open. Vents may be opened to allow work load to cool gradually.

3. To provide removal of vapors which result from heating processes. Most drying operations that release a vapor are best performed with vents partially opened.

NOTE: THIS UNIT IS **NOT** INTENDED FOR USE IN PROCESSING HAZARDOUS WORK LOADS. REFER TO CAUTION NOTICE ON PAGE 9.



L. PROGRAM TIMER (OPTIONAL)

The timer motor runs whenever main switch is in **ON** position. The motor turns the dial. Trippers on the dial activate switch to turn oven on in the morning and off at night. Shunt switch next to timer bypasses time switch to turn oven on untimed. Additional instructions are contained inside cover of timer.

* * * * CAUTION * * * *

THIS PRODUCT IS DESIGNED WITH BUILT-IN SAFETY FEATURES. ANY UNAUTHORIZED MODIFICATIONS OR COMPONENT CHANGES TO THIS UNIT CAN RESULT IN CONDITIONS LEADING TO POSSIBLE HAZARDS.

* * * * * * * * * * * * * *

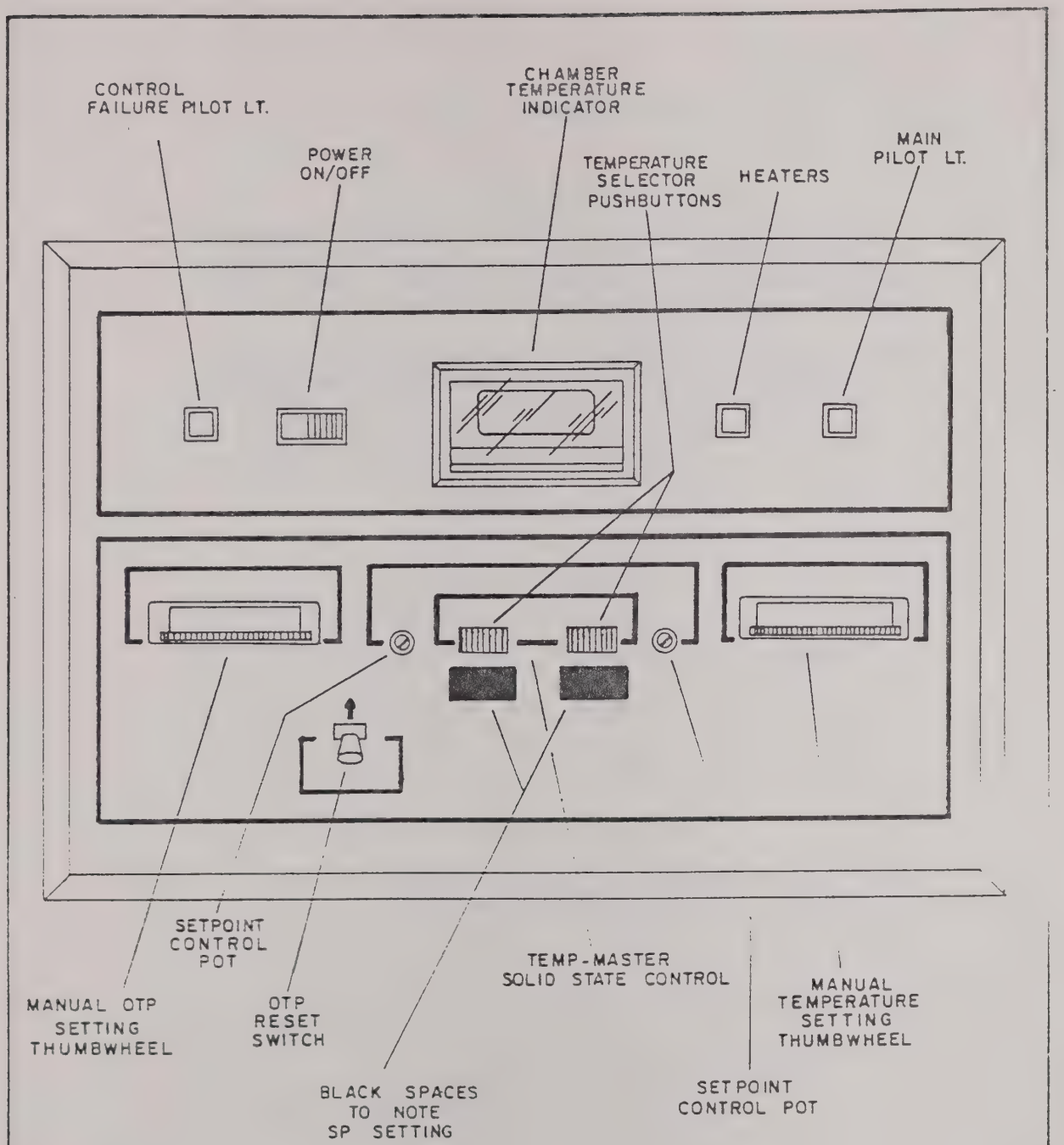

CONTROL FAILURE PILOT LT.
POWER ON/OFF
CHAMBER TEMPERATURE INDICATOR
TEMPERATURE SELECTOR PUSHBUTTONS
HEATERS
MAIN PILOT LT.
SETPOINT CONTROL POT
MANUAL OTP SETTING THUMBWHEEL
OTP RESET SWITCH
BLACK SPACES TO NOTE SP SETTING
TEMP-MASTER SOLID STATE CONTROL
MANUAL TEMPERATURE SETTING THUMBWHEEL
SETPOINT CONTROL POT

FIGURE 1

OPERATION INSTRUCTIONS

*** * * * CAUTION * * * ***

THIS UNIT IS NOT INTENDED FOR USE IN PROCESSING HAZARDOUS WORK LOADS. SERIOUS INJURY OR PROPERTY DAMAGE COULD RESULT FROM PROCESSING VOLATILE FLUIDS OR MATERIALS WHICH EMIT EXPLOSIVE VAPORS.

CONSULT WITH YOUR SAFETY ENGINEERING STAFF BEFORE PROCESSING QUESTIONABLE LOADS IN THIS UNIT.

BLUE M DESIGNS AND MANUFACTURES OTHER EQUIPMENT FOR PROCESSING HAZARDOUS MATERIALS.

* * * * * * * * * * * *

TO START THE UNIT:

1. Place material to be heated into chamber.
2. Close and latch oven door.
3. Turn the power switch to ON. Main pilot should light.
4. Push desired set point switch.
5. Set OTP control 10 to 20 degrees higher than desired main control setting.
6. Adjust vents if exhaust is desired.
7. Observe Heater Light begins flashing as set point is achieved.
8. When baking time is up, shut off main switch. Open door and remove product.

* * * * CAUTION * * * *

WORK LOAD REMOVED FROM THE CHAMBER AS WELL AS ALL CHAMBER SURFACES, SHELVES, DOOR SURFACES (INSIDE AND OUT), DOOR THROAT AREA, INTAKE AND EXHAUST PORTS, AND ALL ITEMS OF THIS NATURE MAY BE VERY HOT. EXTREME CARE MUST BE EXERCISED AT ALL TIMES TO AVOID CONTACT WITH HOT SURFACES TO PREVENT SERIOUS BURNS.

SOLID MATERIALS GOING INTO THE CHAMBER MAY BECOME LIQUID AT HIGH TEMPERATURE. AVOID PERSONAL INJURY: DO NOT SPILL HIGH TEMPERATURE LIQUIDS ON YOURSELF CAUSING BURNS. DO NOT SPILL HIGH TEMPERATURE LIQUIDS ON THE BOTTOM OF THE OVEN TO PREVENT LEAKAGE INTO ELEMENT COMPARTMENT WHERE EQUIPMENT DAMAGE WILL RESULT.

SEE ABOVE HAZARDOUS MATERIALS CAUTION

* * * * * * * * *

CALIBRATION INSTRUCTIONS

Your TEMPMASTER control has been set by the factory as follows:

POT 1 - 50C; POT 2 - 150C; Thumb wheel is calibrated at 150C.

NOTE: 50 degree C. control setting requires that one pass damper be slightly open to exhaust excess heat generated from blower, see section K page 6.

If calibration temperatures were specified in the order, unit was calibrated in final testing at those values. Should recalibration be desired or necessary, follow the steps below.

A. CALIBRATION OF THUMB WHEEL MANUAL SET POINT CONTROL

*** * * * CAUTION * * * ***

CALIBRATION IS PERFORMED WITH THE UNIT POWER ON. EXTREME CARE MUST BE TAKEN WHEN WORKING BEHIND THE CONTROL PANEL BECAUSE HAZARDOUS VOLTAGES ARE PRESENT!

*** * * * * * * * * * ***

Calibrate thumb wheel as follows:

1. Turn unit power on at main switch.

2. Partially depress one of the set point selector switches to turn manual control of chamber over to the thumb wheel control.

3. Adjust the thumb wheel control to the desired calibration temperature. Allow the chamber to stabilize at temperature.

4. When chamber temperature stabilizes, trim the setting of the thumb wheel until the digital display indicates the exact calibration temperature.

NOTE: Make trimming adjustments to thumb wheel in very small increments, allowing 15 to 30 minutes each time for the chamber temperature to stabilize at that setting. As with any electronic control, changes in control setting will lead the physical system response by several minutes.

5. When digital display indicates exact calibration temperature and stabilizes, interrupt power to the unit.

*** * * * CAUTION * * * ***

FAILURE TO REMOVE POWER FROM UNIT LEAVES A SHOCK HAZARD BEHIND THE CONTROL PANEL.

*** * * * * * * * * * ***

6. Unscrew the four captive fasteners on the face of the control assembly and carefully pull the tray outward.

7. Loosen the allen-head set screw which fastens the thumb wheel to the shaft of the pot. Use extreme care not to disturb the setting of the pot!

8. Change the placement of the thumb wheel on the pot's shaft so that the calibrated scale of the thumb wheel lines up with the pointer.

9. When calibration is complete, tighten set screw firmly. Push tray assembly back into the unit and snug down the fasteners.

10. Restore power to unit, and allow chamber temperature to stabilize. Repeat the above steps as necessary for acceptable calibration.

B. CALIBRATION OF PUSH BUTTON SET POINT TRIM POTS

The following procedure is used to adjust the control set point pots to produce required temperatures for each set point switch.

Calibrate Trim Pots As Follows:

1. Turn power on at main switch.

2. Partially depress one of the set point selector switches. When all of the set point selector switches are out, thumb wheel setting controls chamber temperature.

3. Set thumb wheel to the calibration temperature for set point control pot #1, allow chamber to stabilize at the desired temperature.

4. Depress set point selector switch #1, and turn control set point pot until the heater indicator lamp(s) flash on and off. Control set point pot is now in rough calibration.

5. If closer calibration is required, allow temperature of unit to stabilize, then make trimming adjustments to control pot #1 until exact desired temperature is obtained.

6. Repeat procedure for pot and switch #2.

MAINTENANCE

DANGER: TO ELIMINATE ELECTRIC SHOCK HAZARD, DISCONNECT POWER TO UNIT BEFORE ATTEMPTING ANY SERVICE OPERATION

A. CLEANING

The TEMPMASTER Control system requires little, if any, maintenance when operated in a clean environment. However, periodic inspection and cleaning of the control compartment will help ensure long life. Use a high pressure compressed air hose to blow dust out of the compartment. Stainless steel oven interior can be cleaned with a cloth dampened in clean water. Stubborn stains can be removed with mild dishwashing detergent.

B. HEATING ELEMENTS

Periodically inspect the heating element and blower wheel compartments for cleanliness--especially when operating the unit in a dusty environment. Failure to keep these areas clean can lead to early element burn-out.

To replace elements:

1. Remove inner chamber compartment.
2. Disconnect leads from element terminals located in wiring compartment.
3. Straighten element leads and pull them thru insulators into element compartment.
4. Depress element support clips and remove element.
5. To install new element, reverse above procedure.

C. BLOWER MOTOR

Blower is fitted with a sealed bearing and requires no lubrication for the life of the unit.

D. OVERTEMPERATURE SYSTEM CHECK

This safety system operates only if a problem exists within the main control system. It is mandatory that it be checked regularly to insure proper operation. Test this circuit at least once per month.

TO TEST: Operate oven without product load at your normal operating temperature. Readjust main temperature control to a temperature above the set point of the OTP control. Maintain close observation of unit until OTP trips out. If OTP does not trip, adjust calibration of OTP by turning OTP down until it trips. Repeat above test. Overtemperature control must trip on rise of temperature in chamber. If it trips only when OTP set point is turned down, OTP is defective and must be replaced.

*** * * * CAUTION * * * ***

TEST OTP REGULARLY TO ASSURE ITS READY TO PREVENT AN OVERHEATING DISASTER.

*** * * * * * * * * * * ***

WS/rh:6/85

BLUE M

A UNIT OF GENERAL SIGNAL

BLUE ISLAND, ILLINOIS 60406

MODEL NUMBER	VOL
ESP-400C-5	208V,240V/1PH 6
OV-472A-3,OV-475A-3	120V/1PH/60HZ
OV-490A-3,OV-510A-3	120V/1PH/60HZ
OV-500C-3,OV-520C-3	208V,240V/1PH 6
POM-586A-3	120V/1PH/60HZ
POM-586C-3	208V,240V/1PH/6
POM-588C-3	208V,240V/1PH/6

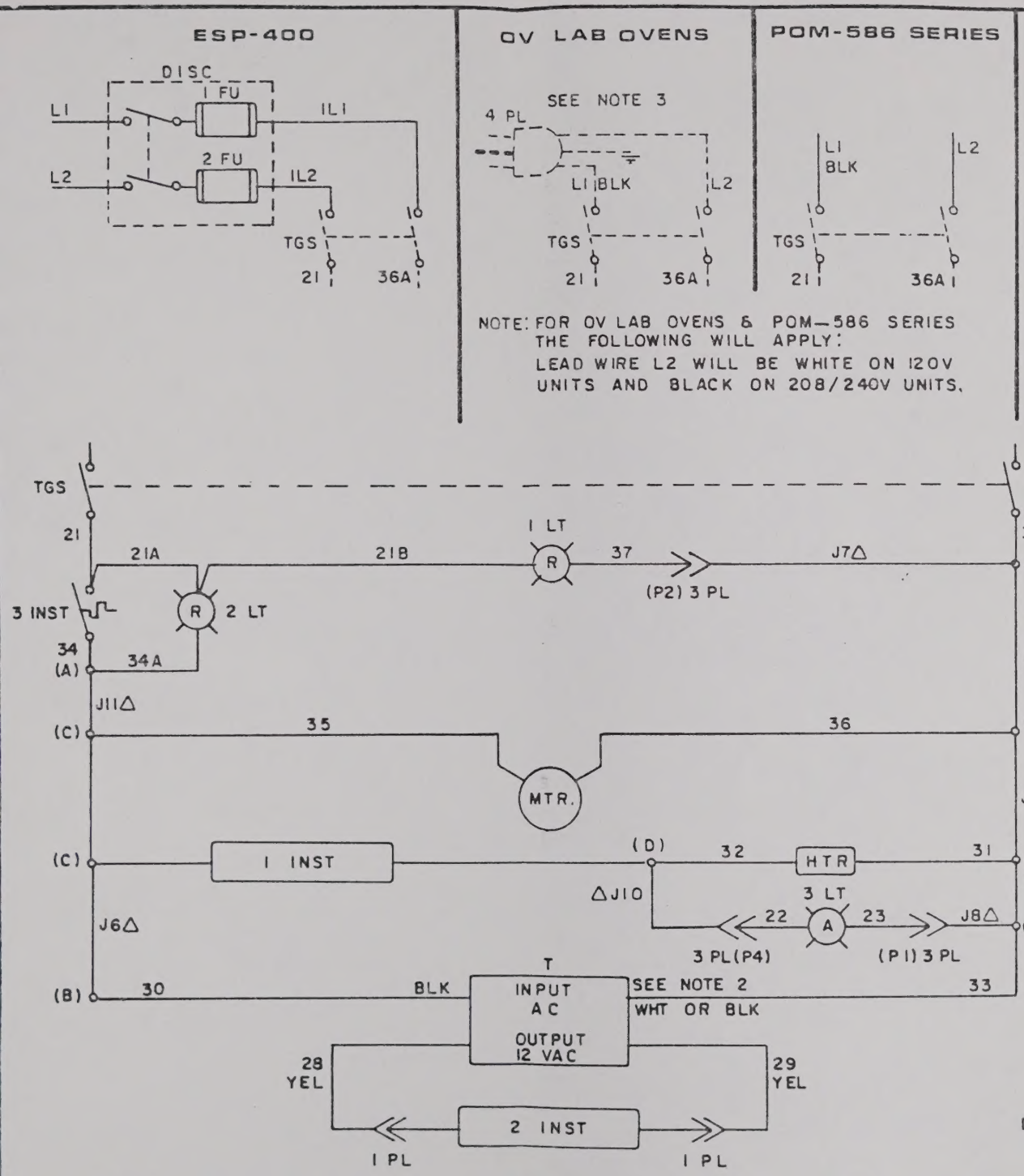
* PARTS NOT SHOWN

ITEM	DESCRIPTION	ESP-400C-5	OV-472A-3 OV-475A-3	OV-490A- OV-510A-
DISC	Disconnect Switch	E16G-10		
1,2FU	Fuse - Main	E04C-20		
HTR	Heating Element	H43-0160-01	A121-829	H2-98
	Heating Element Resistance	16 OHMS	14 OHMS	9 OHMS
1INST	Temp Master Control	C03B-8-05	C03B-8-03	C03B-8-
2INST	Digital Temperature Indicator °C	101950	101950	101950
3INST	Overtemperature Control	C08A-4-1	C08A-4-1	C08A-4-
1,2LT	Pilot Light-Main, Control Failure (Red)	E06B-9	E06B-9	E06B-9
3LT	Pilot Light-Heat (Amber)	E06B-8	E06B-8	E06B-8
MTR	Motor - Blower 1/6 HP 60 HZ	F10A-2-5	F10A-2-4	F10A-2-
1PL	Plug Connector - Transformer (2 PIN)	102872	102872	102872
2PL	Plug Connector - RTD (2 PIN)	←		SUPPLIE
3PL	Plug Connector - Temp Master (6 PIN)	100229	100229	100229
4PL	Line Cord And Plug		E07A-1	
QTM	Thermistor - Temperature Sensor	C11D-4-1	C11D-4-1	C11D-4-
RTD	Resistance Bulb - Temperature Sensor	C11C-2-02	C11C-2-02	C11C-2-
TGS	Toggle Switch - Main	E16B-4	E16B-4	E16B-4
T	Transformer - 120V/12V		101951	101951
T	Transformer - 240V/12V	101952		
*1	Door Hinge	M01-B5	M01-B5	M01-B5
*2	Latch And Strike	M02-D2	M02-D2	M02-D2
*3	Blower Wheel	M10-A71	M10-A73	M10-A7
*4	Blower Shaft Seal	M05-D1	M05-D1	M05-D1
*5	Door Gasket - Inner Seal		M05-A1	M05-A1
*6	Door Gasket - Outer Seal	M05-A1	M05-A1	M05-A1
*7	Shelf - Standard	M04-A206	M04-A205	M04-A20

SPECIFICATIONS

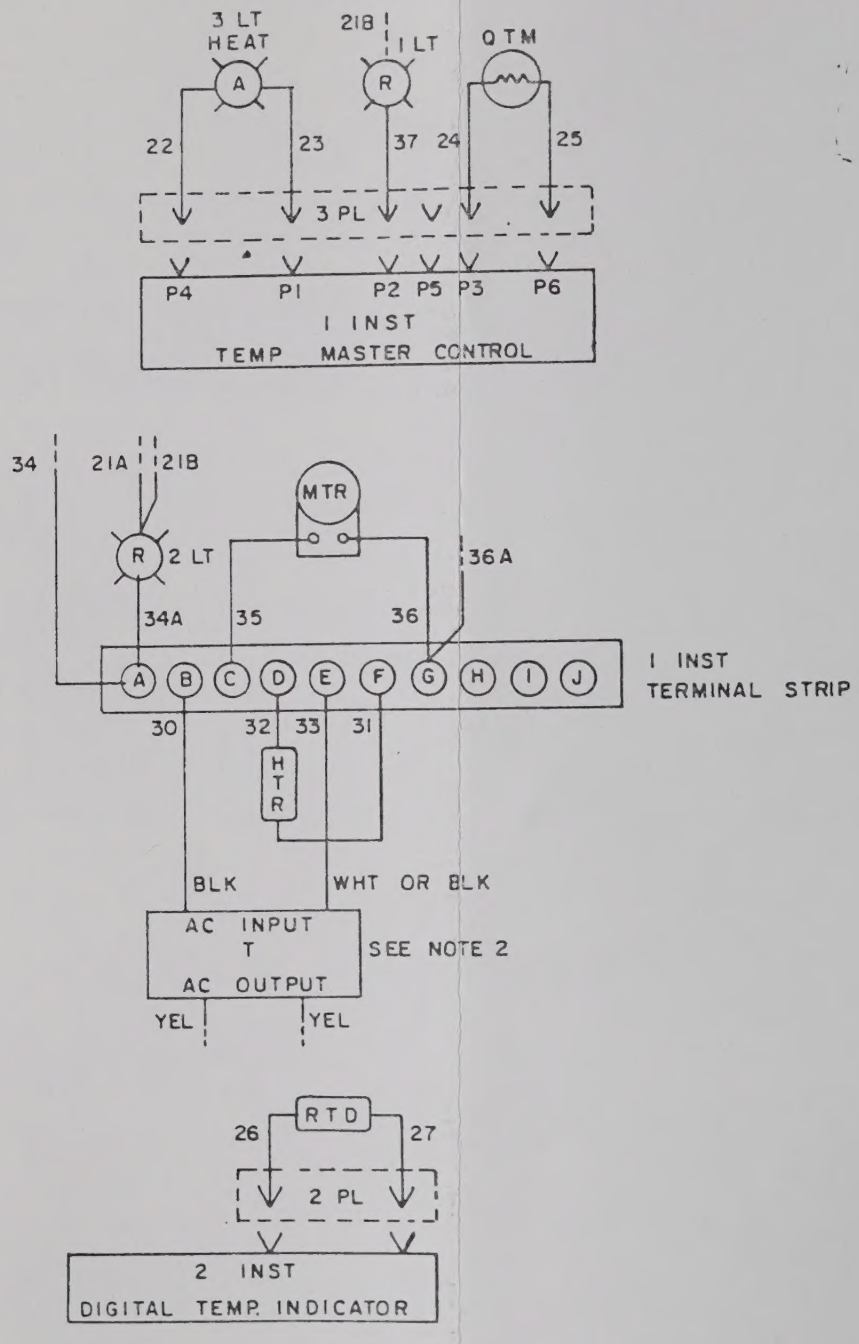
AGE	LINE CURRENT (AMPS)	MOTOR CUR. (AMPS)	MAX. WATTS	MAXIMUM TEMPERATURE	INTERIOR DIMENSIONS
Z	13.5/15.5	1.5	2500/3400	38°C To 260°C	19Wx15Dx18H
	11.0	3.0	1000	38°C To 260°C	13Wx12Dx12H
	15.5	3.0	1600	38°C To 260°C	19Wx15Dx18H
Z	7.0/8.0	1.5	1200/1600	38°C To 260°C	19Wx15Dx18H
	19.0	3.0	2000	180°C	24Wx25Dx24H
Z	8.0/9.0	1.5	1500/2000	180°C	24Wx25Dx24H
Z	15.0/18.0	1.5	3000/4000	260°C	24Wx25Dx24H

	MODEL NUMBER					REQ'D.
	OV-500C-3 OV-520C-3	POM-586A-3	POM-586C-3	POM-588C-3		
						1
						2
3/4	H2-97 x 8 3/4	H2-73 x 25 1/4	H2-74 x 25 1/4	H4-75 x 25 1/4		1
	36 OHMS	7.3 OHMS	29.1 OHMS	14.5 OHMS		
	C03B-8-05	C03B-8-03	C03B-8-05	C03B-8-05		1
	101950	101950	101950	101950		1
	C08A-4-1	C08A-4-1	C08A-4-1	C08A-4-1		1
	E06B-9	E06B-9	E06B-9	E06B-9		2
	E06B-8	E06B-8	E06B-8	E06B-8		1
	E10A-2-5	E10A-2-4	E10A-2-5	E10A-2-5		1
	102872	102872	102872	102872		1
WITH	ITEM RTD →					
	100229	100229	100229	100229		1
	C11D-4-1	C11D-4-1	C11D-4-1	C11D-4-1		1
	C11C-2-02	C11C-2-02	C11C-2-02	C11C-2-02		1
	E16B-4	E16B-4	E16B-4	E16B-4		1
		101951				1
	101952		101952	101952		1
	M01-B5	M01-B1	M01-B1	M01-B1		As Req'd
	M02-D2	M02-G1	M02-G1	M02-G1		1
	M10-A71	M10-A71	M10-A71	M10-A71		1
	M05-D1	M05-D1	M05-D1	M05-D1		1
	M05-A1					As Req'd
	M05-A1	M05-A1	M05-A1	M05-A1		As Req'd
	M04-A206	M04-A214	M04-A214	M04-A214		As Req'd



NOTE:

1) △ INDICATES JUMPERS J6 THRU J11 ARE CONNECTIONS INTERNALLY MADE ON THE 1 INST P.C. BOARD.
2) 120 VOLT UNITS CONNECT WHITE WIRE TO TERM. E. 208,240 VOLT UNITS CONNECT BLACK WIRE TO TERM. E.
3) THE USE OF LINE CORD AND PLUG VARIES WITH THE APPLIED MODEL. REFER TO PARTS LIST FOR SPECIFIC APPLICATION.



TERMINALS

A THRU J 15 AMP RATING (LOCATED ON 1 INST)

LEAD NUMBERS

21 THRU 37

BLUE M

A UNIT OF GENERAL SIGNAL
BLUE ISLAND ILLINOIS 60406

PART NAME: WIRING DIAGRAM

USED ON: ESP-400,OV LAB OVENS, POM-586 SERIES

MP MASTER
MA33644